

AMENDMENTS TO THE CLAIMS

This Claims Listing will replace ALL prior versions, and listings, of Claims in the present application.

1. (Original) A method of making a magnetic tunnel junction device, comprising:

forming a magnetic tunnel junction stack;

patterning the magnetic tunnel junction stack;

forming a discrete magnetic tunnel junction stack by etching the magnetic tunnel junction stack;

forming an electrically non-conductive spacer layer on the discrete magnetic tunnel junction stack;

forming a spacer by anisotropically etching the spacer layer;

forming a dielectric layer over the discrete magnetic tunnel junction stack and the spacer;

planarizing the dielectric layer to form a substantially planar surface;

patterning the dielectric layer;

forming a self-aligned via by etching the dielectric layer;

depositing a first electrically conductive material on the dielectric layer and in the self-aligned via;

planarizing the first electrically conductive material to form a via positioned in the self-aligned via;

depositing a second electrically conductive material on the dielectric layer and on the via;

patterning the second electrically conductive material; and

forming a top conductor by etching the second electrically conductive material.

2. (Original) The method as set forth in Claim 1, wherein the depositing of the first electrically conductive material is continued until the first electrically conductive material completely fills the self-aligned via.

3. (Original) The method as set forth in Claim 1, wherein the spacer layer is conformally deposited on the discrete magnetic tunnel junction stack.

4. (Original) The method as set forth in Claim 1, wherein the spacer layer comprises a material selected from the group consisting of silicon oxide and silicon nitride.

5. (Original) The method as set forth in Claim 1, wherein the anisotropically etching the spacer layer comprises a reactive ion etch.

6. (Original) The method as set forth in Claim 1, wherein after the forming of the self-aligned via, the discrete magnetic tunnel junction stack and the self-aligned via are not aligned relative to each other.

7. (Original) A method of making a magnetic tunnel junction device from a previously fabricated discrete magnetic tunnel junction stack, comprising:

forming an electrically non-conductive spacer layer on the discrete magnetic tunnel junction stack;

forming a spacer by anisotropically etching the spacer layer;

forming a dielectric layer over the discrete magnetic tunnel junction stack and the spacer;

planarizing the dielectric layer to form a substantially planar surface;

patterning the dielectric layer;

forming a self-aligned via by etching the dielectric layer;

depositing a first electrically conductive material on the dielectric layer and in the self-aligned via;

planarizing the first electrically conductive material to form a via positioned in the self-aligned via;

depositing a second electrically conductive material on the dielectric layer and on the via;

patterning the second electrically conductive material; and

forming a top conductor by etching the second electrically conductive material.

8. (Original) The method as set forth in Claim 7, wherein the depositing of the first electrically conductive material is continued until the first electrically conductive material completely fills the self-aligned via.

9. (Original) The method as set forth in Claim 7, wherein the spacer layer is conformally deposited on the discrete magnetic tunnel junction stack.

10. (Original) The method as set forth in Claim 7, wherein the spacer layer comprises a material selected from the group consisting of silicon oxide and silicon nitride.

11. (Original) The method as set forth in Claim 7, wherein the anisotropically etching the spacer layer comprises a reactive ion etch.

12. (Original) The method as set forth in Claim 7, wherein after the forming of the self-aligned via, the discrete magnetic tunnel junction stack and the self-aligned via are not aligned relative to each other.

Claims 13 - 18 **(Cancelled)**